

**Amendments to the Specification:**

Please replace paragraph [0016] with the following amended paragraph:

[0016] FIGS. 2(a)-2(c) illustrate a thermal mapping catheter in accordance with a second embodiment of the present invention. FIG 12 illustrates an embodiment of the thermal mapping catheter that includes an ultrasonic imaging arrangement.

Please replace paragraph [0073] with the following amended paragraph:

[0073] As mentioned above, in some applications it will be desirable to provide an integrated mapping tool that facilitates both thermal mapping and vessel imaging functions, since these techniques provide different (and potentially complimentary) information about the vessel. There are currently a variety of imaging technologies available, including ultrasonic imaging catheters, angioscopy catheters and angiography catheters and it may be desirable to include any of these with thermal mapping. The thermal mapping identifies metabolic hot spots but is not well adapted to show the luminal size of a vessel or lesion. In contrast, for example, ultrasonic imaging is well suited to illustrate the structure of plaque, but is not able to distinguish dangerous plaque from ordinary plaque. Thus, there is an attraction to integrated devices. FIG. 12 illustrates an embodiment of the catheter 110 that includes an ultrasonic imaging arrangement 1200 extending from its distal portion. One simple way to provide an integrated thermal mapping and ultrasonic imaging catheter is to provide a relatively large guide wire lumen in any of the described catheters. A conventional ultrasonic imaging catheter can then effectively be used as the guide wire for the thermal mapping catheter. By way of example, an ultrasound catheter such as that described by

Yock, U.S. Pat. No. 4,794,931, No. 5,000,185, and No. 5,313,949 or that described by Maroney et al, U.S. Pat. No. 5,373,849 each of which are incorporated herein by reference would work well.